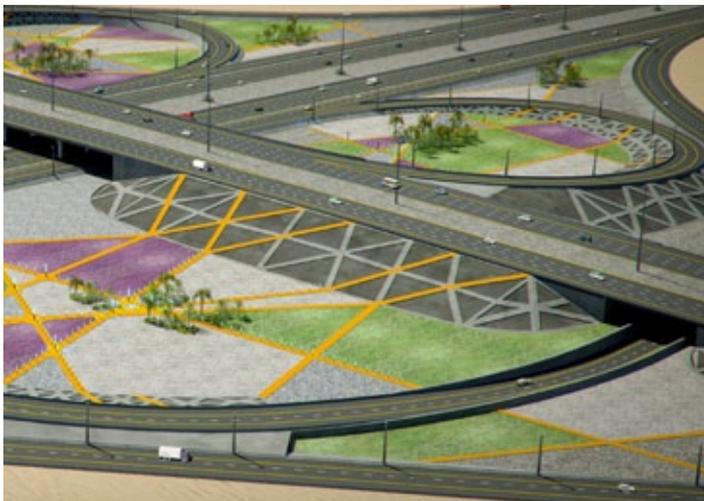


Case study

L&T Construction Finds a Worthy Partner in Fujitsu

»We were very happy with the performance and have continued to procure Fujitsu workstations. I did not have the opportunity to see a Fujitsu engineer walking in for a support issue except during installations.«

B. Srinivasan, General Manager, Head Information Systems, L&T Construction



India's largest technology, engineering and construction company Larsen and Toubro Ltd. (L&T), a \$11.7 billion enterprise with global operations, is arguably India's best known corporation in the sector. L&T Construction is responsible for consulting and infrastructure design and development. There is a noticeable rise in energy as the company gears up to tap a market that may be as large as \$50 billion in the coming years, as building India's infrastructure ratchets up.

High-end Workstation Needed

"The strength of our success in construction is our design," said B. Srinivasan, General Manager IT, L&T Construction. "Each IC would have about 500 engineers working on design. Our design has always been unique, making waves in research, delivering cheaper structural designs without compromising on quality and strength," he said. "Today all support is in-house and my team provides 24/7, 365-day support and operating times of 99.99 percent," he said. A set of high-end workstations running sophisticated design software ensure engineering designs are flawless and construction projects are executed with precision.

Leading Role in Engineering Design

Over the last few years, L&T has increasingly come to depend on a partner that possesses the same obsession with quality and performance - Fujitsu's CELSIUS workstations are increasingly playing a leading role in the engineering design work at L&T Construction. While L&T also deploys hardware from other suppliers, it has found Fujitsu more reliable. Up to now, there has been "no failure at all with Fujitsu machines," said P V Jayaprakash, Deputy General Manager, Systems, Larsen and Toubro Construction. "This is critical because of project deadlines," he said.

The customer

- Larsen and Toubro Ltd. is arguably India's best known engineering construction company.
- L&T Construction is the business unit responsible for consulting and infrastructure design and development.
- L&T Construction is responsible for some of the best known and most prestigious infrastructure projects in India, including airports, large road networks, bridges and townships, metro railway and mono rail systems.
- The unit is responsible for 50 percent of the company's total revenue.

www.lntec.com



The challenge

- High-end engineering design work requiring highly skilled engineers working at efficient workstations.
- Multiple workstations used across multiple design centres requiring very low-decibel noise levels, low power consumption and top-of-the-line support for maximum operating time.

The solution

Fujitsu CELSIUS workstations

Fujitsu workstations deliver the best performance, with the lowest noise levels and low power consumption



Failure rate: Zero

L&T's Construction unit accounts for 50 percent of the engineering giant's revenue, being driven by large construction contracts from airports to intensive R&D projects. For the last three to four years, Fujitsu has been supplying the workstations needed for the relevant design work at L&T Construction. Since the rugged Fujitsu machines have been deployed at L&T, their failure rate has been absolutely zero. The Fujitsu's CELSIUS workstations that were implemented are used by HQ and some major job sites across seven centres, for activities such as computer-aided design. An important consideration in the selection of the workstations is the very low noise level. With multiple machines operating on the same site, the resultant noise levels can be seriously

bothersome. Highly skilled design engineers need a conducive atmosphere in order to turn out their best work and keeping the decibel level low was a major priority. Fujitsu's workstations have consistently delivered superior performance on this front. This has also been a factor that influenced L&T to purchase additional machines over the last three or so years, to a total of over 200 top-end machines today.

High-end Specifications

AutoCAD, the software predominantly used for high-end engineering design at L&T Construction, requires equally well configured workstations. Fujitsu's workstations come with graphic cards such as the ones supplied by the card maker NVidia. They have valid certifications that

»We are looking ahead to strengthening ourselves with more Fujitsu products like the PRIMERGY servers and ETERNUS storage and tape libraries. We are sure that Fujitsu as a company, quickly aligns itself to the dynamic IT trends, has a long-term vision and is very committed. It is a worthwhile relationship.«

P. V. Jayaprakash, Deputy General Manager, Systems, L&T Construction

make the workstations ideally suited for using the engineering design software. L&T's specifications including those for performance, power consumption, quality, and technical support were ably met by Fujitsu. Further, Fujitsu's channel partner SBA Infosolutions ensured that L&T got the support it needed.

Keeping the Noise-level Down

Prior to engaging with Fujitsu, the workstations being used by the business unit weren't delivering the level of performance that L&T was looking for in power consumption, decibel levels, and the workstation's capability in handling the design software itself. Unlike servers in a data centre, workstations tend to be located close to where the design engineers work, which makes keeping the noise level down very important. "After booting Fujitsu CELSIUS workstations, there is no noise," said Jayaprakash. The designers also tried workstations from Fujitsu's competitors and found them lacking in one or the other area – noise levels, performance or support. "In Fujitsu's case, there is no requirement for support to begin with," he said. "It's been more than two years since we procured the Fujitsu workstations and there have been no service calls and that's a great thing," he added.

Fujitsu Workstation Comparison

The nature of the sophisticated design work carried out at L&T Construction is reflected in the careful configuration of the workstations delivered by Fujitsu. A 'normal' desktop PC wouldn't be good enough. Applications such as the ones used by L&T's designers need workstations that are both configured and fine-tuned to run them. While high-end desktop PCs with graphics processors supporting dual displays are available, they are at best a poor second to fully fledged workstations such as the ones delivered by Fujitsu. Regular PCs are designed for horizontal apps, such as mail or web browsing. However, workstations are configured to handle an intensive workload over long periods of time, with specific applications such as Autodesk, and other computer-aided design software, as in the case of L&T. Fujitsu's workstations are both fine tuned and certified to run such dedicated, vertical-specific applications. Further, they are also available across an extensive range comprising of configurations built around three varieties of CPUs.

Low Noise-level

This also addresses a second important workstation requirement, being capable of running for hours, often with zero downtime.



The benefit

- Fujitsu's workstations come with graphic cards such as the ones supplied by the card maker NVidia with valid certifications that make the workstations ideally suited to using the engineering design software.
- Dual LCD displays makes tasks such as comparing designs, a breeze, reducing time on any given task by as much as 25 percent thus increasing productivity.
- AUTOCAD REVIT running on Fujitsu workstations is complete. It's greater compatibility enables a 7-hr reduction in time for structural analysis work.
- The tightly integrated Fujitsu workstations has the capacity to render video, processor, architecture, products and services.

Products and services

- Clients: 91x Fujitsu CELSIUS M470-2, M470, M460, R650 (90 percent of them have dual monitors)
- Software: AutoCAD 2011, REVIT Suite of applications, including Architecture 2011, Structure 2011, MEP 2011, Navisworks Review 2011, Navisworks Manager 2011

Currently, L&T is using a Fujitsu workstation from the 'advanced' category, which they decided to upgrade over the last two to three years. The design of the Fujitsu workstations ensures that the noise level stays as low as 22 decibels, an important criteria for L&T when choosing these workstations.

Compelling Choice for L&T

The made-in-Germany workstations didn't require support for over two years. The high quality of the workstations, backed by Fujitsu's outstanding technical support team, made these computers a compelling choice for L&T. This is reflected in the repeat orders they have placed for the advanced level workstations. It is also an important consideration, given the highly-skilled manpower that L&T employs. Any downtime of even one workstation, would mean that a highly paid designer would be under-utilized.

Superior Experience

L&T Construction relies on Fujitsu's workstations for some of its most prestigious work. The dual LCD display simplifies tasks such as comparing designs, when the construction giant worked on projects like the Delhi International Airport or the Mumbai International Airport. On dual LCD, it is easy to compare drawings, stretches, etc. Changes made to the design even remotely, could be witnessed at the site. A large

drawing can be viewed 'as is' without panning or zooming. Panning over two LCDs is more realistic in that sense allowing a holistic view of the drawing. Better visibility of the detailing of the features is also provided. A second benefit was an increase in productivity, as the time spent in zooming and panning was reduced. One is also able to view two drawings simultaneously instead of opening and closing windows. This has led to a reduction in the time spent on any given task by as much as 25 percent.

A Worthwhile Relationship with Fujitsu

"REVIT with Fujitsu workstations is a great combination," said Jayaprakash. "It has improved productivity overall," he said. With the use of NVidia graphic cards, there was an evident increase in performance. AUTOCAD REVIT when run on Fujitsu workstations is complete and the greater compatibility meant that structural analysis that used to take 10 hours on earlier machines now takes only three hours. The tightly integrated Fujitsu workstations' capacity to render, video, processor, and architecture, all contribute to an overall superior end-user experience. "We are looking ahead to strengthening ourselves with more Fujitsu products like the PRIMERGY servers and ETERNUS storage tape libraries. We are sure that Fujitsu as a company that quickly aligns itself to the dynamic IT trends, has a long-term vision and is very committed. It is a worthwhile relationship."



Contact

Fujitsu Technology Solutions
Customer Interaction Centre
Mo. – Fr. 8 am – 6 pm
E-mail: cic@ts.fujitsu.com
Telephone: +49 (0) 1805-372 100
(14 cents/min via German landline,
max. 42 cents/min via German mobile network)

All rights reserved, including intellectual property rights. Technical data subject to modifications and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner. For further information see: www.fujitsu.com/fts/termsfuse
Copyright © Fujitsu Technology Solutions GmbH 2012